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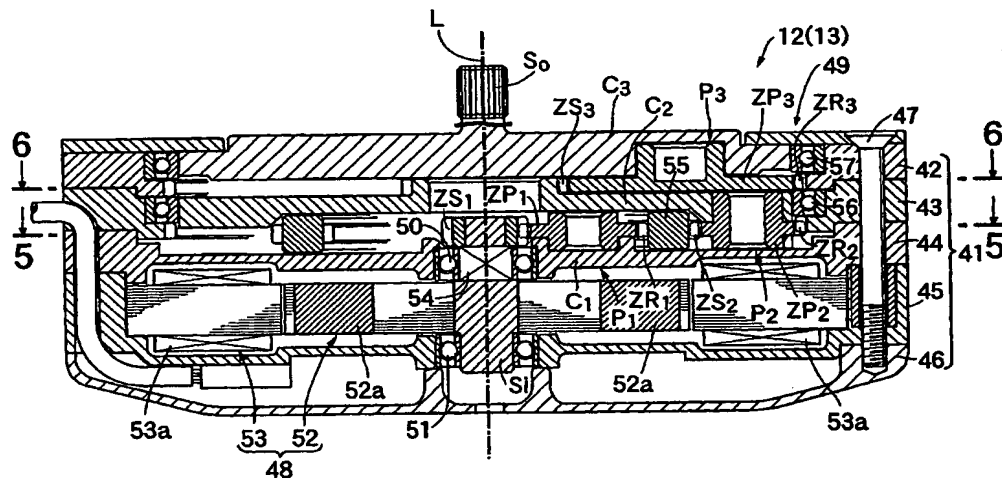
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(54) Title: SPEED REDUCER FOR WALK ASSIST APPARATUS

(54) 発明の名称: 歩行補助装置の減速機



(57) **Abstract:** A speed reducer (49) for a walk assist apparatus comprises first-third planetary gear mechanisms (P_1 , P_2 , P_3) between an input shaft (S_i) connected to a motor (48) and an output shaft (S_o). The second planetary gear mechanism (P_2) is provided radially outside the first planetary gear mechanism (P_1) connected to the input shaft (S_i), and the third planetary gear mechanism (P_3) is provided outside, in an axis (L) direction, the first planetary gear mechanism (P_1). As a consequence, the thickness of the speed reducer (49) can be made less than the case where the rotation of the input shaft (S_i) is reduced in three stages by the first-third planetary gear mechanisms (P_1 , P_2 , P_3) and transmitted to the output shaft (S_o) with all the planetary gear mechanisms (P_1 , P_2 , P_3) laid over each other in the axis (L) direction. This results that the appearance of the walk assist apparatus when worn by a user is improved.

(57) **要約:** 歩行補助装置の減速機 (49) はモータ (48) に接続された入力軸 (S_i) と出力軸 (S_o) との間に、第1～第3プラネタリギヤ機構 ($P_1 \sim P_3$) を備えており、入力軸 (S_i) に接続された第1プラネタリギヤ機構 (P_1) の半径方向外側に第2プラネタリギヤ機構 (P_2) を配置し、第

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ABSTRACT

A reduction gear (49) for a walking assistance system is provided that includes first to third planetary gear mechanisms (P_1 to P_3) between an input shaft (S_i) connected to a motor (48) and an output shaft (S_o), the second planetary gear mechanism (P_2) being disposed radially outside the first planetary gear mechanism (P_1) connected to the input shaft (S_i), and the third planetary gear mechanism (P_3) being disposed outside, in the direction of an axis L , the first planetary gear mechanism (P_1). It is therefore possible, while reducing the speed of rotation of the input shaft (S_i) in three stages by the first to the third planetary gear mechanisms (P_1 to P_3) and transmitting the rotation to the output shaft (S_o), to reduce the thickness of the reduction gear (49) compared with a case in which the first to the third planetary gear mechanisms (P_1 to P_3) are disposed so as to be stacked in the direction of the axis (L), thereby improving the appearance when a user is fitted with the walking assistance system.